

| L Number | Hits | Search Text   | DB  | Time stamp          |
|----------|------|---|---|---------------------|
| 1        | 0    | ("graded near12 active and (light-emitting or light adj emitting).ti,ab,clm.").PN.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>13:10 |
| 2        | 90   | graded near12 active and (light-emitting or light adj emitting).ti,ab,clm.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>13:44 |
| 3        | 5    | graded near12 active near12 (match\$3 or lattice-match\$3) and (light-emitting or light adj emitting).ti,ab,clm. and GaAs | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:24 |
| 4        | 2    | ("6072189").PN.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:24 |
| 5        | 4    | ("5476811").PN.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:32 |
| 6        | 0    | step-wise near3 graded near6 (match\$3 or lattice-match\$3) and (light-emitting or light adj emitting)                    | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:33 |
| 7        | 2    | step-wise near3 graded and (light-emitting or light adj emitting)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:34 |
| 8        | 2    | step-wise near3 graded adj layer and (light-emitting or light adj emitting or laser)                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:36 |
| 9        | 16   | step near3 graded adj layer and (light-emitting or light adj emitting or laser)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:37 |
| 10       | 10   | step near3 graded adj layer and (light-emitting or light adj emitting or laser).ti,ab,clm.                                | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:39 |
| 11       | 3    | step-graded adj layer and (light-emitting or light adj emitting or laser).ti,ab,clm.                                      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:41 |
| 12       | 7    | step-graded near3 layer and (light-emitting or light adj emitting or laser).ti,ab,clm.                                    | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:53 |
| 13       | 4    | 895213.ap.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:56 |

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| 14 | 13  | step-wise near3 (layer or multi-graded or multi-layer) and (light-emitting or light adj emitting or laser).ti,ab,clm. and (match\$3 or lattice-match\$3) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/03/02<br>15:58 |
| -  | 0   | triode adj (light-emitting or led).ti.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>09:51 |
| -  | 2   | triode adj (light-emitting or led).ti,ab.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>17:48 |
| -  | 11  | triode near4 (light-emitting or led).ti,ab.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>17:51 |
| -  | 0   | triode near4 (light-emitting or led).ti,ab,clm. and graded near4 (layer or film)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>17:50 |
| -  | 290 | (257/101).CCLS.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>17:51 |
| -  | 15  | ((257/101).CCLS.) and (high-frequency or GHz or gigahertz)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>18:02 |
| -  | 7   | ((257/101).CCLS.) and (high-frequency or GHz or gigahertz) and (graded or transition\$2) near12 (layer or film)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>18:14 |
| -  | 4   | ((257/101).CCLS.) and graded near4 (layer or film) near12 offset near12 band   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>18:21 |
| -  | 9   | 257/\$6.ccls. and graded near4 (layer or film) near12 offset near12 band   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>18:25 |
| -  | 361 | 257/101  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>18:25 |
| -  | 9   | 257/101 and offset and (graded or transition\$2) near12 (layer or film)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>18:33 |
| -  | 2   | (257/101 or 372/43.ccls.) and (graded or transition\$2) near12 (layer or film) near12 active near12 base   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>18:35 |
| -  | 0   | ("(pn adj junction or p-n adj junction or pn-junction) near12 offset near12 graded").PN.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:52 |

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| - | 0     | (pn adj junction or p-n adj junction or pn-junction) near12 offset near12 graded   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:52 |
| - | 140   | (pn adj junction or p-n adj junction or pn-junction) near12 offset   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:52 |
| - | 0     | (pn adj junction or p-n adj junction or pn-junction) near15 offset near15 graded   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:53 |
| - | 188   | (pn adj junction or p-n adj junction or pn-junction) near15 graded   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:58 |
| - | 33    | (pn adj junction or p-n adj junction or pn-junction) near10 (graded near3 (layer or film))   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:54 |
| - | 1     | (pn adj junction or p-n adj junction or pn-junction) near10 (graded near3 (layer or film)) near10 band   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:56 |
| - | 3     | ("4032951").PN.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>20:56 |
| - | 7     | (pn adj junction or p-n adj junction or pn-junction) near15 graded and (257/101.ccls. or 372/43.ccls.)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>21:07 |
| - | 19    | active adj (layer or film) near15 graded and (257/101.ccls. or 372/43.ccls.)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>21:42 |
| - | 2     | jp-60202981\$-\$.did.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/01<br>21:42 |
| - | 18378 | ((257/79) or (257/80) or (257/81) or (257/82) or (257/83) or (257/84) or (257/85) or (257/86) or (257/87) or (257/88) or (257/89) or (257/90) or (257/91) or (257/92) or (257/93) or (257/94) or (257/95) or (257/96) or (257/97) or (257/98) or (257/99) or (257/100) or (257/101) or (257/102) or (257/103) or (372/43) or (372/44) or (372/45) or (372/46) or (372/47) or (372/48) or (372/49) or (372/50)).CCLS. | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>13:51 |

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|---|-----|--|---|---------------------|
| - | 11  | ((257/79) or (257/80) or (257/81) or (257/82) or (257/83) or (257/84) or (257/85) or (257/86) or (257/87) or (257/88) or (257/89) or (257/90) or (257/91) or (257/92) or (257/93) or (257/94) or (257/95) or (257/96) or (257/97) or (257/98) or (257/99) or (257/100) or (257/101) or (257/102) or (257/103) or (372/43) or (372/44) or (372/45) or (372/46) or (372/47) or (372/48) or (372/49) or (372/50)).CCLS.) and active adj (layer or film) near12 (graded near2 composition or graded-composition) | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>10:44 |
| - | 2   | jp-04120786\$-\$.did.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>10:30 |
| - | 4   | ("5476811").PN.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>13:26 |
| - | 20  | (US-5476811-\$ or US-5159603-\$ or US-5642372-\$ or US-6350997-\$ or US-5311539-\$ or US-5329134-\$ or US-5610413-\$ or US-5548137-\$ or US-5633527-\$ or US-6072189-\$ or US-4032951-\$ or US-5670798-\$).did. or (US-20020030195-\$).did. or (JP-04120786-\$ or JP-60202981-\$).did. or (US-5476811-\$ or JP-60202981-\$ or US-4032951-\$).did.  | USPAT;<br>US-PGPUB;<br>JPO;<br>DERWENT                  | 2002/09/02<br>13:09 |
| - | 13  | ((US-5476811-\$ or US-5159603-\$ or US-5642372-\$ or US-6350997-\$ or US-5311539-\$ or US-5329134-\$ or US-5610413-\$ or US-5548137-\$ or US-5633527-\$ or US-6072189-\$ or US-4032951-\$ or US-5670798-\$).did. or (US-20020030195-\$).did. or (JP-04120786-\$ or JP-60202981-\$).did. or (US-5476811-\$ or JP-60202981-\$ or US-4032951-\$).did.) and (step or stepwise)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>10:52 |
| - | 1   | 257/101.ccls. and (graded or graded-composition) adj2 active adj layer   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>10:53 |
| - | 2   | ("5159603").PN.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>13:09 |
| - | 2   | ("6350997").PN.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>13:10 |
| - | 290 | (257/101).CCLS.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>13:39 |
| - | 0   | (257/101 and graded near6 active).CCLS.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2002/09/02<br>13:39 |

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| - | 5 | 257/101 and graded near6 active | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2002/09/02<br>13:40 |
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